

Section 10-3: Arcs and Chords

By the end of this lesson, you should be able to answer:

- How do you recognize and use relationships between arcs and chords?
- How do you recognize and use relationships between arcs, chords, and diameters?

Theorems:

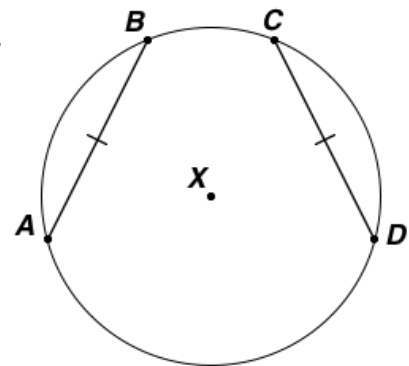
10.2 - Congruent Minor Arcs:

10.3 - Perpendicularity:

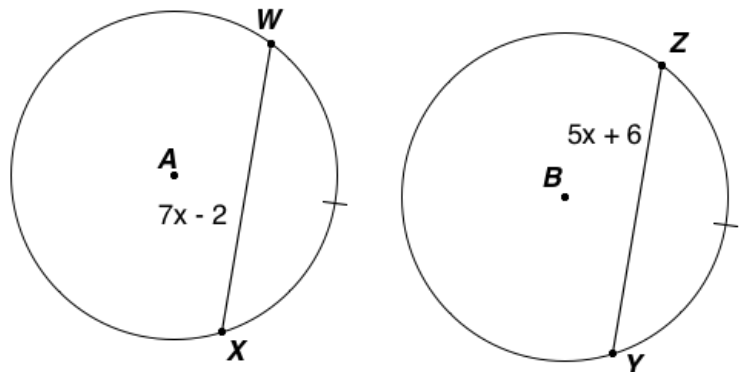
10.4 - Perpendicularity:

10.5 - Congruent Chords:

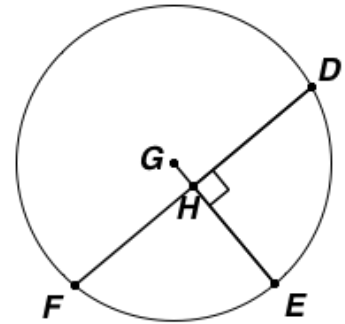
Example 1: In $\odot X$, $\overline{AB} \cong \overline{CD}$ and $m\widehat{CD} = 90^\circ$. Find $m\widehat{AB}$.



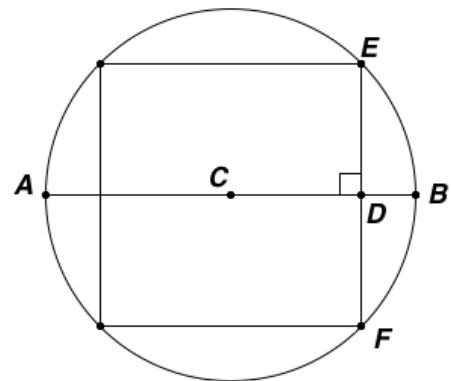
Example 2: In the figure, $\odot A \cong \odot B$ and $\widehat{WX} \cong \widehat{YZ}$. Find WX .



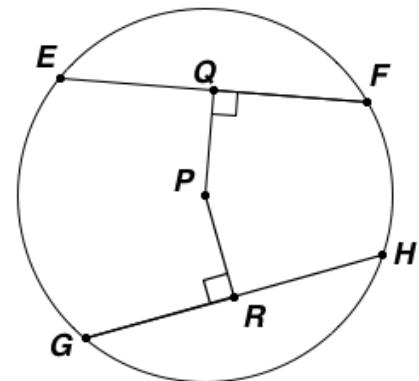
Example 3: In $\odot G$, $m\widehat{DEF} = 150^\circ$. Find $m\widehat{DE}$.



Example 4: In $\odot C$, $\overline{AB} = 18$ inches and $\overline{EF} = 8$ inches. Find CD .



Example 5: In $\odot P$, $EF = GH = 24$, $PQ = 4x - 3$, and $PR = 2x + 3$. Find PQ .



Problem Set:

"I may not have gone where I intended to go, but I think I have ended up where I needed to be." – Douglas Adams